



Subject card

Subject name and code	3D visualisation of space data, E:41053W0						
Field of study	Space and Satellite Technologies						
Date of commencement of studies	February 2024	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group					
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			English		
Semester of study	1	ECTS credits			2.0		
Learning profile		Assessment form			assessment		
Conducting unit	Department of Geoinformatics -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Marcin Kulawiak				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		0.0		0.0	30
Subject objectives	To familiarize students with manual and programming methods of three-dimensional visualization of space data.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K7_U12	Student is able to use and to implement methods of space data visualisation.			[SU1] Assessment of task fulfilment		
	K7_W12	He has the knowledge on methods of three-dimensional visualization of space data.			[SW1] Assessment of factual knowledge		
	[K7_K03] Can analyse and implement assigned tasks while maintaining high technical standards. Is able to work and interact in a group, taking on different roles. Adheres to the principles of professional ethics and respects the diversity of views and cultures.	Student implements his tasks related to 3D space data visualisation maintaining high technical standards.			[SK2] Assessment of progress of work		
Subject contents	3D visualisation of space data: basics of 3-dimensional computer graphics, 3D data visualization methods, coordinate systems for space and spatial data, 3D data formats, programming technologies and libraries, 3D graphics in WWW						
Prerequisites and co-requisites	-						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Exam		50.0%		50.0%		
	Project		60.0%		50.0%		

Recommended reading	Basic literature	Bruce Eckel, Thinking in Java (4th edition) Richard S. Wright, Benjamin Lipchak, Nicholas Haemel: OpenGL SuperBible: Comprehensive Tutorial and Reference Addison-Wesley Professional; 5 edition Preston Prescott, JavaScript Programming: A Beginners Guide to the Javascript Programming Language
	Supplementary literature	-
	eResources addresses	Adresy na platformie eNauzanie:
Example issues/ example questions/ tasks being completed	-	
Work placement	Not applicable	